

## CLAIMS

What is claimed is:

1. A luminaire assembly comprising:
  - a. A bulb cone;
  - b. A mounting connection adapted to mount the bulb cone to a support;
  - c. A reflector having a portion adapted for connection to the bulb cone and an opening adapted to be covered by a lens;
  - d. A mount for a double-ended unjacketed HID light source, the mount adapted to be positioned interiorly of the reflector and including a member adapted to removably receive and hold a double-ended HID light source; and
  - e. An electrical power connection adapted for connection to a source of electrical power.
2. The luminaire assembly of claim 1 wherein the bulb cone includes an interior chamber in which is positioned a frame, the frame including a receiver adapted to fixedly hold a first finger-safe electrical connection and a guide adapted to guide a complementary second finger-safe connection into operative but manually releasable engagement with the second finger-safe connection.
3. The apparatus of claim 2 further comprising another receiver and guide adapted for a second set of first and second finger-safe connections.
4. The apparatus of claim 2 wherein the second finger-safe connection has an elongated insulated body.
5. The apparatus of claim 2 wherein the first finger-safe connection is positioned in the interior of the bulb cone and the second finger-safe connection, when engaged with the first finger-safe connection, extends towards the reflector.

6. The apparatus of claim 5 further comprising a removable portion of the reflector at the portion attached to the bulb cone to gain access to the finger-safe connections.

7. The luminaire assembly of claim 1 wherein said mount for said HID source comprises first and second spaced apart receivers, one for each of said double ends of the HID source; each receiver connected to an arm extending to a portion adapted for mounting to either the reflector or the bulb cone, such that the receivers are positioned to hold an HID source in a desired position interiorly of the reflector.

8. The luminaire assembly of claim 7 further comprising manually releasably members on one of the receivers or the HID light source adapted to releasably lock the HID source into the receivers.

9. The luminaire assembly of claim 8 wherein the manually releasable members comprise resilient devices that engage and lock into complementary structure in the receivers.

10. The luminaire assembly of claim 9 wherein the manually releasable members comprise spring clips attached to ends of the HID source, the spring clips in a normal state being expanded in at least one direction, and having manually manipulatable portions allowing retraction in said at least one direction.

11. The luminaire assembly of claim 8 further comprising structure to orient said HID source in a desired rotation orientation relative to a longitudinal axis of an HID source when mounted.

12. The luminaire assembly of claim 11 further comprising a reflective member on a portion of an HID source, the reflective member positioned to redirect light energy from the source interiorly of the source.

5 13. The luminaire assembly of claim 1 further comprising an ignitor circuit for the HID source, the ignitor circuit adapted to be segregated from a ballast circuit for the HID source, the ignitor circuit being closer to the HID source than to the ballast circuit.

10 14. The luminaire assembly of claim 13 further comprising a housing for the ignitor circuit adapted to be mounted on or adjacent to the luminaire assembly.

15 15. The luminaire assembly of claim 14 wherein the ignitor circuit housing is adapted to be mounted to the bulb cone of the luminaire assembly.

16. The luminaire assembly of claim 1 further comprising a UV attenuation applied to the HID source.

20 17. The luminaire assembly of claim 16 wherein the UV attenuation substantially attenuates UV radiation from any part of the HID source.

18. The luminaire assembly of claim 1 wherein the HID source is an arc tube having about 1000 watts or more rating.

25 19. The luminaire assembly of claim 1 where there is no exposed electrically conducting surface from the HID source to a connection to a source of electrical power when the electrical circuit is connected.

20. The luminaire assembly of claim 19 where there is no electrically conducting surface that can be accessed by human fingers when connections to electrical power at the luminaire assembly are disconnected.

- 5 21. A method of generating light from a luminaire assembly according to claim 1 having an HID light source comprising: positioning an HID light source in the form of an arc tube in a reflector; redirecting light from a portion of the HID light source that otherwise would leave the arc tube back towards a portion of the arc tube.

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22. The method of claim 21 wherein the light is redirected in a manner to encourage isothermal conditions in the arc tube.

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